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AN ANALYSIS OF THE EVOLUTION OF RESEARCH CONTRIBUTIONS BY *THE* *ACCOUNTING REVIEW*, 1926-2005

Abstract: In her presidential message to the American Accounting Association (AAA) in August 2005, Judy Rayburn discussed the issue of the relatively low citation rate for accounting research compared to finance, management, and marketing. Rayburn concluded that accounting's low citation rate was due to a lack of diversity in topics and research methods. In this paper, we provide a review of the AAA's flagship journal, *The Accounting Review (TAR)*, following its 80 years of publication, and describe why some recent AAA leaders believe that significant changes should be made to the journal's publication and editorial policies. At issue is whether scholarly accounting research is overly focused on mathematical analysis and empirical research, or "accountics" as it has sometimes been called, at the expense of research that benefits the general practice of accountancy and discovery research on more interesting topics. We conclude from our review of *TAR* that after mostly publishing research about accounting practices for the first 40 years, a sweeping change in editorial policy occurred in the 1960s and 1970s that narrowly defined scholarly research in accounting as that which employs accountics.

INTRODUCTION

In 2005, the American Accounting Association (AAA) reached a milestone having published its quarterly flagship journal, *The Accounting Review (TAR)*, for 80 years. The content of *TAR* has changed in overlapping phases over those 80 years, especially in the years since Chatfield [1975] published a review on the occasion of *TAR*'s 50th anniversary. Heck and Bremser [1986] subsequently published a more statistical review of *TAR*'s

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first 60 years. *TAR* was, and still is, one of the world's leading accounting research journals. However, now in its 81st year of existence, AAA leadership is questioning the focus of research published therein. In her presidential message at the AAA annual meeting in San Francisco in August 2005, Judy Rayburn addressed the low citation rate of accounting research compared to research in other fields. Rayburn [2006, p. 4] concluded that this low citation rate reflected a lack of diversity in topics and research methods:

Accounting research is different from other business disciplines in the area of citations: top-tier accounting journals in total have fewer citations than top-tier journals in finance, management, and marketing. Our journals are not widely cited outside our discipline. Our top-tier journals as a group project too narrow a view of the breadth and diversity of (what should count as) accounting research.

The purpose of this paper is to review the evolution of *TAR* over its 80-year existence and to illustrate how the perceptions of what it means to be a "leading scholar" in accounting changed after a monumental shift in editorial policy in the 1970s. While *TAR* served accountancy teachers, practitioners, and standard setters of the profession in its first 40 years, it gradually changed in ways that mirrored other academic journals, according to McLemee [2006, quoted later in this paper].

In the opinion of some, *TAR* has evolved into a journal that is incomprehensible and, thus, of little interest to practitioners and many accounting educators [Flesher, 1991, p. 169]. While professions like medicine, finance, and economics have benefited from seminal ideas first published in academic literature, it is difficult to trace innovations in accounting practice to research published in scholarly journals. For example, many articles on activity-based costing (ABC) do appear in accounting research journals, but the idea for ABC costing started at the John Deere Company. Most other innovations in the profession, like dollar-value LIFO, can ultimately be traced back to the accounting industry rather than to academe [Jensen, 2006a]. The harvests of "discovery research" in the accounting academy have been called into question by the practicing profession.

Ittner and Larker [2001] conducted a review of studies in managerial accounting and concluded that existing research was practice-oriented and tended to focus mainly on management fads. Case studies and field-based surveys were purportedly

shallow and not scientifically investigated. The main criticism was that results defied generalization. Zimmerman [2001, p. 412] followed up by conjecturing with respect to the literature's atheoretical approach:

It has been 15 years since Kaplan ... called for more field-based research. Although much field research has been published during this period, it has not led to the theory building and testing envisioned. Wandering the halls of corporations without tentative hypotheses has not been fruitful.

Empirical researchers should use economics-based hypotheses and emphasize the control function of accounting. The shift towards consulting-like, practice-oriented research will cause less theory development and hypotheses testing research to be conducted and all areas of accounting inquiry will suffer.

Martin [2001] countered by questioning the value of the contributions of theoretical economics applications preferred by leading academic accounting research journals:

See Kaplan 1998 and Jones & Dugdale who report that contributions such as the development of ABC were not authenticated by mainstream accounting journals or professional organizations. Instead management consultants at Harvard and CAM-I had a pivotal role. So the question can be turned around. What are the major contributions from what Zimmerman refers to as the mainstream North American accounting journals?

Especially during the 1986-2005 period, *TAR* editors rejected virtually all "consulting-like, practice-oriented research." We examined all articles published by *TAR* between 1986 and 2005 and found over 99% of *TAR*'s articles (excluding book/literature reviews, editorials, and memorials) contained complex mathematical equations and multivariate statistical analyses of a narrow subset of topics amenable to analysis using mathematics, management science, econometrics, and psychometrics. More traditional normative, historical, AIS, and case-method studies all but disappeared from *TAR*. Other top accounting research journals were changing as well and became virtually equivalent to the new *TAR* [Dyckman and Zeff, 1984]. Because advancement of faculty in top schools required publishing in top-tier journals [Langenderfer, 1987, p. 303], it became imperative over the past three decades for doctoral programs and their graduates to focus more narrowly on accountics as preferred by *TAR*

and other top-tier accounting research journals.

Initially we point out trends since Heck and Bremser [1986] analyzed the first 60 years. Leading authors across the entire 80-year history of *TAR* are shown in Table 1. The number of appearances is adjusted proportionately by the number of co-authors on each published paper.

TABLE 1
Most Frequently Appearing Authors
in *The Accounting Review*, 1926-2005

Rank	Author	Appearances	Adjusted Appearances	Rank	Author	Appearances	Adjusted Appearances
1	Littleton, A.C.	40	38.80	45	Ashton, Robert H.	9	7.00
2	Bierman, Harold, Jr.	20	18.33	46	Abdel-Khalik, A. Rashad	9	6.83
3	Paton, William A.	20	15.61	47	Kaplan, Robert S.	9	6.83
4	Kohler, E.L.	17	15.17	48	Krebs, William S.	9	6.54
5	Demski, Joel S.	17	11.67	49	Ijiri, Yuji	9	6.50
6	Murphy, Mary E.	16	16.00	50	Dopuch, Nicholas	9	6.00
7	Avery, Harold G.	16	15.50	51	Hatfield, Henry R.	9	6.00
8	Mautz, Robert K.	16	13.50	52	Lev, Baruch	9	5.83
9	Dohr, James L.	14	13.50	53	Wildman, John R.	9	5.10
10	Kerrigan, Harry D.	14	13.50	54	Briggs, L.L.	8	8.00
11	Greer, Howard C.	13	12.17	55	Chambers, R. J.	8	8.00
12	Scott, DR	13	12.17	56	Devine, Carl Thomas	8	8.00
13	Taggart, Herbert F.	13	11.64	57	Garner, S. Paul	8	8.00
14	Hornsgren, Charles T.	13	10.83	58	Moyer, C.A.	8	8.00
15	Revsine, Lawrence	13	9.67	59	Stettler, Howard F.	8	8.00
16	Mason, Perry	12	12.00	60	Davidson, Sidney	8	7.50
17	Husband, George R.	12	11.33	61	Myers, John H.	8	7.50
18	Lorig, Arthur N.	12	11.33	62	Raby, William L.	8	7.50
19	Bedford, Norton M.	12	.50	63	Newlove, G.H.	8	7.11
20	Cooper, William W.	12	5.92	64	Usry, Milton F.	8	7.00
21	Campfield, William L.	11	11.00	65	Rappaport, Alfred	8	6.50
22	Singer, Frank A.	11	11.00	66	Deakin, Edward B.	8	6.33
23	Scovill, Hiram T.	11	9.83	67	Chow, Chee W.	8	5.17
24	Kinney, William R., Jr.	11	7.67	68	Jaedicke, Robert K.	8	5.17
25	Manes, Rene Pierre	11	7.33	69	Decoster, Don T.	8	5.00
26	Beaver, William H.	11	6.83	70	Feltham, Gerald A.	8	4.83
27	Bowers, Russell	10	10.00	71	Sorter, George H.	8	4.83
28	Graham, Willard J.	10	10.00	72	Verrecchia, Robert E.	8	4.83
29	Simon, Sidney I.	10	10.00	73	Ronen, Joshua	8	4.67
30	Smith, Frank P.	10	10.00	74	Neter, John	8	4.58
31	Staubus, George J.	10	10.00	75	Larcker, David F.	8	3.83
32	Moonitz, Maurice	10	9.00	76	Nelson, Mark W.	8	3.67
33	Perry, Kenneth W.	10	9.00	77	Boatsman, James R.	8	3.25
34	Roem, C. Rufus	10	8.61		31 Authors with	7	
35	Zeff, Stephen A.	10	8.50		45 Authors with	6	
36	Mckeown, James C.	10	6.33		72 Authors with	5	
37	Benninger, Lawrence J.	9	9.00		117 Authors with	4	
38	Stone, Willard E.	9	9.00		234 Authors with	3	
39	Van Voorhis, Robert H.	9	9.00		510 Authors with	2	
40	Vance, Lawrence L.	9	9.00		1827 Authors with	1	
41	Vatter, William J.	9	9.00		Total Authors	2913	
42	Castenholz, William B.	9	8.50		Total Appearances	5696	
43	Howard, Stanley E.	9	8.50		Total Articles	4209	
44	Morey, Lloyd	9	8.25				

Heck and Bremser [1986] showed that leading academic authors, such as Littleton, Bierman, and Paton, along with practitioners like Kohler, tended to dominate authorship in the early years of *TAR*. We added Table 2 to show that across four 20-year intervals, there has been a dramatic downturn in the probability that an author will have five or more *TAR* appearances over two decades. We find a much higher turnover of authors in recent years.

TABLE 2
Author Appearance Trends (as a Percentage of All Appearances) in *The Accounting Review*, 1926-2005

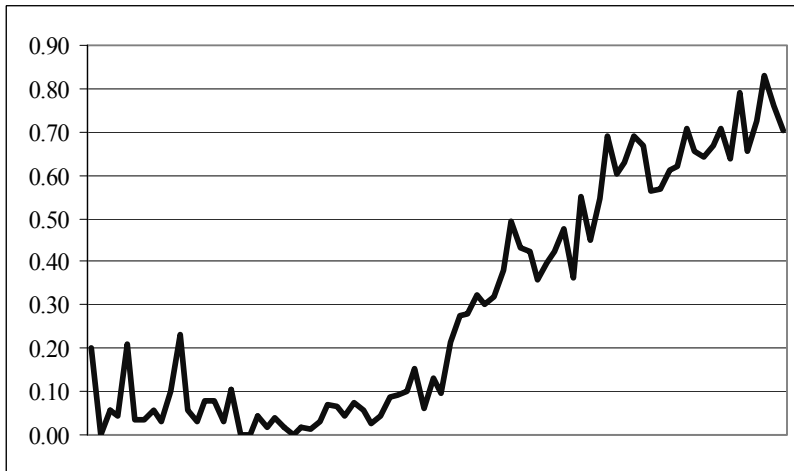
	3 or More	4 or More	5 or More
1926-46	22.8%	12.4%	8.4%
1946-65	19.5%	10.9%	5.6%
1966-85	12.4%	7.3%	4.5%
1986-05	14.5%	6.0%	0.2%
1926-05	19.8%	11.7%	7.7%

We expected that the rise in joint authorship might have increased the probabilities of particular authors to have five or more appearances, but this expectation turned out not to be the case. Joint authorship was almost nonexistent in the early years, but its incidence exploded in later years, as shown in Figure 1. This pattern is consistent with the findings of Heck et al. [1990, 1991] for multiple accounting research journals.

Table 2 outcomes indicate that joint authorship has not increased the probability of any one author having more than five appearances across two decades of time. We speculate that this is in large measure due to the fact that the “leading authors” in the past 20 years increasingly spread their papers among other research journals. *TAR* no longer holds the monopoly it once had as the only premiere journal of academic accounting research. But we also suspect that the actual reasons for this decline in probabilities are more complicated. Appearances in *TAR* have become much more competitive with the explosion in the proportion of capital-markets, accountics studies submitted to *TAR* by more and more accounting faculty.

Although the number of accounting doctoral programs in the U.S. approaches one hundred in recent years, there is a persistent set of doctoral-granting universities whose faculties have

FIGURE 1

Trend in Joint Authorship of TAR Articles, 1926-2005

published most frequently in *TAR* every decade even though individual authors have a much higher rate of turnover in those universities. See Table 3 for a listing of those universities employing the most frequent *TAR* authors for both the journal's entire 1926-2005 history and the most recent decades.

In Table 3, 16 universities are consistently in the top 30 and 12 universities are consistently in the top 20. In recent decades of intensive accountings, Pennsylvania roared out of nowhere from 1966-1985 to rank third in 1986-2005. Southern California, Notre Dame, Columbia, Arizona, Duke, and North Carolina made noteworthy jumps into the top 20 employers of *TAR* authors. Purdue, Georgia, and Kansas made brief appearances in the 1966-1985 decades but then faded from the top.

Two universities appearing in Table 3 are worthy of special comment. Harvard has an excellent reputation in managerial accounting but has never been a noted leader in accountings. It did not make the Table 3 top 30 over the last 40 years of *TAR* publishing. At the opposite extreme, the University of Rochester is a noted leader in accountings but is not in the top 30 in the last 40 years of *TAR*. We suspect the reason is that Rochester's accounting professors are fewer in number and prefer to publish accountings research in their own *Journal of Accounting and Economics* and in Chicago's *Journal of Accounting Research*.

We analyze the outcomes of doctoral students who graduated from those same programs later in this paper in Table 5.

TABLE 3
Most Frequently Appearing Institutions in *The Accounting Review*, 1926-2005

Period: 1926-2005				Period: 1966-1985				Period: 1986-2005			
Rank	Institution	Appear- ances	Adjusted Appear- ances	Rank	Institution	Appear- ances	Adjusted Appear- ances	Rank	Institution	Appear- ances	Adjusted Appear- ances
1	Illinois	272	224.94	1	Texas	78	51.08	1	Indiana	45	19.17
2	Texas	158	106.08	2	Illinois	50	33.83	2	Texas	43	21.50
3	Michigan	123	95.67	3	U. Washington	44	29.83	3	Pennsylvania	41	19.83
4	Chicago	118	92.67	4	Stanford	43	29.33	4	Michigan	34	23.17
5	UC Berkeley	109	93.67	5	Penn State	41	28.00	5	Cornell	34	17.17
6	U. Washington	105	75.33	6	Chicago	40	30.42	6	U. Washington	31	17.67
7	Michigan State	104	72.33	7	Michigan State	40	26.00	7	Iowa	30	14.33
8	Northwestern	102	74.17	8	Northwestern	37	24.42	8	Stanford	28	15.58
9	Stanford	99	68.58	9	Purdue	36	21.50	9	Illinois	26	13.50
10	Pennsylvania	93	68.83	10	Iowa	33	20.33	10	Southern California	26	11.50
11	Indiana	84	50.98	11	Michigan	31	21.83	11	Notre Dame	25	12.58
12	Penn State	76	55.75	12	NYU	31	19.67	12	Michigan State	25	11.33
13	Cornell	74	48.33	13	Carnegie Mellon	30	16.33	13	NYU	24	12.75
14	NYU	73	48.42	14	Cornell	28	20.33	14	Columbia	23	13.83
15	Columbia	72	57.77	15	Oklahoma State	27	18.50	15	Arizona	23	13.00
16	Iowa	69	40.67	16	Georgia	27	15.58	16	Chicago	21	13.25
17	Missouri	67	45.87	17	Wisconsin	25	16.17	17	Duke	21	10.58
18	Ohio State	66	49.31	18	Kansas	24	18.17	18	North Carolina	21	10.42

TABLE 3
Most Frequently Appearing Institutions in *The Accounting Review*, 1926-2005
 (continued)

Period: 1926-2005				Period: 1966-1985				Period: 1986-2005			
Rank	Institution	Appear- ances	Adjusted Appear- ances	Rank	Institution	Appear- ances	Adjusted Appear- ances	Rank	Institution	Appear- ances	Adjusted Appear- ances
19	Wisconsin	63	41.75	19	Florida	24	17.67	19	Wisconsin	21	9.58
20	Carnegie Mellon	62	37.08	20	Arizona State	24	14.83	20	Florida	20	12.00
21	Southern California	59	39.81	21	UC Berkeley	22	20.67	21	Northwestern	20	11.83
22	UCLA	56	50.25	22	Missouri	22	17.33	22	Arizona State	20	9.50
23	Harvard	56	45.00	23	Virginia Tech	21	14.33	23	Bartuch	20	9.17
25	Florida	56	41.67	25	North Carolina	20	14.33	25	UC Berkeley	18	11.33
25	Minnesota	53	33.00	25	Tel Aviv	19	7.67	25	Emory	18	9.17
26	North Carolina	50	33.25	26	Indiana	18	13.33	26	Missouri	18	8.17
27	Washington U.	50	32.91	27	Minnesota	18	9.33	27	Washington U.	17	10.83
28	Purdue	49	29.00	28	Massachusetts	17	12.67	28	Florida State	17	7.17
29	Arizona State	45	25.33	29	Ohio State	17	12.50	29	Ohio State	16	8.17
30	Rochester	44	33.00	30	South California	16	12.17	30	Hong Kong	16	7.67
	Arizona	44	27.33		Arizona	16	9.33		Texas A&M	16	6.75
	Georgia	44	24.75		SUNY Albany	16	8.5				
Total All Authors		5,696		Total All Authors		1,834		Total All Authors		1,453	

Alma maters of frequent *TAR* authors are even more consistently in the top 20 than are the Table 3 rankings of employers.

TAR BETWEEN 1926 AND 1955: IGNORING ACCOUNTICS

Accountics is the mathematical science of values.

Charles Sprague [1887], quoted in McMillan [1998, p. 1]

Charles Sprague, an accounting professor at Columbia University (then called Columbia College), coined the word “accountics” in 1887. The word is not used today in accounting and has some alternative meanings outside our discipline. However, in the early 20th century, accountics was the centerpiece of some unpublished lectures by Sprague. McMillan [1998, p. 11] stated:

These claims were not a pragmatic strategy to legitimize the development of sophisticated bookkeeping theories. Rather, this development of a science was seen as revealing long-hidden realities within the economic environment and the double-entry bookkeeping system itself. The science of accounts, through systematic mathematical analysis, could discover hidden thrust of the reality of economic value. The term ‘accountics’ captured the imagination of the members of the IA, connoting advances in bookkeeping that all these men were experiencing.

By 1900, there was a journal called *Accountics* [Forrester, 2003]. Both the journal and the term “accountics” had short lives, but the belief that mathematical analysis and empirical research can “discover [the] hidden thrust of the reality of economic value” (see above) underlies much of what has been published in *TAR* over the past three decades. Hence, we propose reviving the term “accountics” to describe the research methods and quantitative analysis tools that have become popular in *TAR* and other leading accounting research journals. We essentially define accountics as equivalent to the scientific study of values in what Zimmerman [2001, p. 414] called “agency problems, corporate governance, capital asset pricing, capital budgeting, decision analysis, risk management, queuing theory, and statistical audit analysis.”

The American Association of University Instructors of Accounting, which in December 1935 became the AAA, commenced unofficially in 1915 [Zeff, 1966, p. 5]. It was proposed in October 1919 that the AAA publish a *Quarterly Journal of Accountics*. This proposed accountics journal never got off the

ground as leaders of the AAA argued heatedly and fruitlessly about whether accountancy was a science. A quarterly journal, *The Accounting Review*, was subsequently born in 1925, with its first issue published in March 1926. However, its accountics-like attributes did not commence in earnest until the 1960s.

Practitioner involvement, in large measure, was the reason for changing the name of the association to the AAA by removing the words “of University Instructors.” Practitioners interested in accounting education participated actively in AAA meetings. *TAR* articles in the first several decades were devoted heavily to education and to accounting issues in particular industries and trade groups. Research methodologies were mainly normative (without mathematics), case study, and archival (history). Anecdotal evidence and hypothetical illustrations ruled the day. The longest serving editor of *TAR* was the practitioner Eric Kohler, who solely determined what was published in *TAR* between 1929 and 1943. In those years, when the AAA leadership mandated that *TAR* focus on the development of accounting principles, publications were oriented to both practitioners and educators [Chatfield, 1975, p. 4].

Following World War II, practitioners outnumbered educators in the AAA [Chatfield, 1975, p. 4]. Leading partners from accounting firms took pride in publishing papers and books intended to inspire scholarship among professors and students. Over the years, some practitioners, particularly those with scholarly publications, were admitted into the Accounting Hall of Fame founded by Ohio State University. Prior to the 1960s, accounting educators were generally long on practical experience and short on academic credentials, such as doctoral degrees.

A major catalyst for change in accounting research occurred when the Ford Foundation poured millions of dollars into the study of collegiate business schools and the funding of doctoral programs and students in business studies. Gordon and Howell [1959] reported that business faculty in colleges lacked research skills and academic esteem when compared to their colleagues in the sciences. The Ford Foundation thereafter provided funding for doctoral programs and for top-quality graduate students to pursue doctoral degrees in business and accountancy. The Foundation even funded the publication of selected doctoral dissertations to give doctoral studies in business more visibility. Great pressure was also brought to bear on academic associations like the AAA to increase the scientific standards for publications in journals like *TAR*.

TAR BETWEEN 1956 AND 1985: THE NURTURING OF ACCOUNTICS

A perfect storm for change in accounting research arose in the late 1950s and early 1960s. First came the critical Pierson Carnegie Report [1959] and the Gordon and Howell Ford Foundation Report [1959]. Shortly thereafter, the American Assembly of Collegiate Schools of Business introduced a requirement requiring that a certain percentage of faculty possess doctoral degrees for business education programs seeking accreditation [Bricker and Previts, 1990]. Soon afterwards, both a doctorate and publication in top accounting research journals became necessary for tenure [Langenderfer, 1987].

A second component of this perfect storm for change was the proliferation of mainframe computers, the development of analytical software (e.g., early SPSS for mainframes), and the dawning of management and decision “sciences.” The third huge stimulus for changed research is rooted in portfolio theory, discovered by Harry Markowitz in 1952 as the core of his dissertation at Princeton, which was published in book form in 1959. This theory eventually gave birth to the Nobel Prize-winning Capital Asset Pricing Model (CAPM) and a new era of capital market research. A fourth stimulus was the availability of the CRSP stock price tapes from the University of Chicago. The availability of CRSP led to a high number of *TAR* articles on capital market event studies (e.g., the impact of earnings announcements on trading prices and volumes) covering a period of nearly 40 years.

This “perfect storm” roared into nearly all accounting and finance research and turned academic accounting research into an accountics-centered science of values and mathematical/statistical analysis. After 1960, there was a shift in *TAR*, albeit slow at first, toward preferences for quantitative model building – econometric models in capital market studies, time series models in forecasting, advanced calculus information science, information economics, analytical models, and psychometric behavioral models. Chatfield [1975, p. 6] wrote the following:

Beginning in the 1960s the *Review* published many more articles by non-accountants, whose contribution involved showing how ideas or methods from their own discipline could be used to solve particular accounting problems. The more successful adaptations included matrix theory, mathematical model building, organization theory, linear programming, and Bayesian analysis.

TAR was not alone in moving toward a more quantitative focus. Accountics methodologies accompanied similar quantitative model-building preferences in finance, marketing, management science, decision science, operations research, information economics, computer science, and information systems. Early changes along these lines began to appear in other leading research journals between 1956-1965, with some mathematical modeling papers noted by Dyckman and Zeff [1984, p. 229]. Fleming et al. [2000, p. 43] documented additional emphases on quantitative methodology between 1966 and 1985. In particular, they noted how tenure requirements began to change and asserted the following:

The Accounting Review evolved into a journal with demanding acceptance standards whose leading authors were highly educated accounting academics who, to a large degree, brought methods and tools from other disciplines to bear upon accounting issues.

A number of new academic accountancy journals were launched in the early 1960s, including the *Journal of Accounting Research* (1963), *Abacus* (1965), and *The International Journal of Accounting Education and Research* (1965). Clinging to its traditional normative roots and trade-article style would have made *TAR* appear to be a journal for academic Luddites. Actually, many of the new mathematical approaches to theory development were fundamentally normative, but they were couched in the formidable language and rigors of mathematics. Publication of papers in traditional normative theory, history, and systems slowly ground to almost zero in the new age of accountics.

These new spearheads in accountics were not without problems. It is both humorous and sad to go back and discover how naïve and misleading some of *TAR*'s bold and high-risk thrusts were in quantitative methods. Statistical models were employed without regard to underlying assumptions of independence, temporal stationarity, multicollinearity, homoscedasticity, missing variables, and departures from the normal distribution. Mathematical applications were proposed for real-world systems that failed to meet continuity and non-convexity assumptions inherent in models such as linear programming and calculus optimizations. Some proposed applications of finite mathematics and discrete (integer) programming failed because the fastest computers in the world, then and now, could not solve most realistic integer programming problems in less than one hundred years.

After financial databases provided a beta covariance of each security in a portfolio with the market portfolio, many capital market events studies were published by *TAR* and other leading accounting journals. In the early years, accounting researchers did not challenge the CAPM's assumptions and limitations – limitations that, in retrospect, cast doubt upon many of the findings based upon any single index of market risk [Fama and French, 1992].

Leading accounting professors lamented *TAR*'s preference for rigor over relevancy [Zeff, 1978; Williams, 1985, 2003; Lee, 1997]. Sundem [1987] provides revealing information about the changed perceptions of authors, almost entirely from academe, who submitted manuscripts for review between June 1982 and May 1986. Among the 1,148 submissions, only 39 used archival (history) methods; 34 of those submissions were rejected. Another 34 submissions used survey methods; 33 of those were rejected. One hundred submissions used traditional normative (deductive) methods with 85 suffering rejection. Except for a small set of 28 manuscripts classified as using "other" methods (mainly descriptive empirical, according to Sundem), the remaining larger subset of submitted manuscripts used methods that Sundem [1987, p. 199] classified as follows:

292	General Empirical
172	Behavioral
135	Analytical modeling
119	Capital Market
97	Economic modeling
40	Statistical modeling
29	Simulation

It is clear that by 1982, accounting researchers realized that having mathematical or statistical analysis in *TAR* submissions made accountings virtually a necessary, albeit not sufficient, condition for acceptance for publication. It became increasingly difficult for a single editor to have expertise in all of the above methods. In the late 1960s, editorial decisions on publication shifted from the *TAR* editor alone to the *TAR* editor in conjunction with specialized referees and eventually to associate editors [Flesher, 1991, p. 167]. Fleming et al. [2000, p. 45] wrote the following:

The big change was in research methods. Modeling and empirical methods became prominent during 1966-1985, with analytical modeling and general empirical

methods leading the way. Although used to a surprising extent, deductive-type methods declined in popularity, especially in the second half of the 1966-1985 period.

We were surprised that there has been no reduction in accountants' dominance in *TAR* since 1986 despite changes in the environment, such as the explosion of communications networking, interacting relational databases, and sophisticated accounting information systems (AIS). Virtually no AIS papers were published in *TAR* between 1986 and 2005. This practice was changed in 2006 by the appointment of a new AIS associate editor to encourage publication of some AIS papers that often do not fit neatly into the accountants' mold. In an interesting aside, we note that the AAA has become a leading *international* association of accounting educators. Sundem [1987] reported that about 12% of the manuscripts submitted came from outside North America. The AAA is an international association that provides publication opportunities to all members; manuscripts are submitted from many parts of the world. In our opinion, this development has contributed significantly to the rise in accountants' studies worldwide.

A major change at *TAR* took place in the 1980s with the creation of new AAA journals to relieve *TAR* of publishing articles that were less accountants-oriented. Prior to 1983, *TAR* was the leading academic journal for teachers of accounting as well as for practitioners. Numerous *TAR* papers appeared on how to improve accounting education and teaching. In an effort to better serve educators, the AAA created a specialty journal, *Issues in Accounting Education*, first published in 1983. A journal aimed more at issues facing practitioners was inaugurated in 1987, *Accounting Horizons* (*AH*). Around this time, the AAA also granted permission for specialty "sections" to be formed for sub-disciplines of accounting, resulting in additional new journals. These new journals allowed *TAR* to focus more heavily on quantitative papers that became increasingly difficult for practitioners and many teachers of accounting to comprehend.

Fleming et al. [2000, p. 48] report that education articles in *TAR* declined from 21% in 1946-1965 to 8% in 1966-1985. *Issues in Accounting Education* began to publish the education articles in 1983. Garcha et al. [1983] reported on the readership of *TAR* before any new specialty journals commenced in the AAA. They found that among their AAA membership respondents, only 41.7% would subscribe to *TAR* if it became unbundled in terms of dollar savings from AAA membership dues.

This suggests that *TAR* was not meeting the AAA membership's needs. Based heavily upon the written comments of respondents, the authors' conclusions were, in part, as follows [Garcha et al. [1983, p. 37]:

The findings of the survey reveal that opinions vary regarding *TAR* and that emotions run high. At one extreme some respondents seem to believe that *TAR* is performing its intended function very well. Those sharing this view may believe that its mission is to provide a high-quality outlet for those at the cutting-edge of accounting research. The pay-off for this approach may be recognition by peers, achieving tenure and promotion, and gaining mobility should one care to move. This group may also believe that trying to affect current practice is futile anyway, so why even try?

At the other extreme are those who believe that *TAR* is not serving its intended purpose. This group may believe *TAR* should serve the readership interests of the audiences identified by the Moonitz Committee. Many in the intended audience cannot write for, cannot read, or are not interested in reading the Main Articles which have been published during approximately the last decade. As a result there is the suggestion that this group believes that a change in editorial policy is needed.

After a study by Abdel-khalik [1976] revealed complaints about the difficulties of following the increased quantitative terminology in *TAR*, editors did introduce abstracts at the beginning of articles to summarize major findings with less jargon [Flesher, 1991, p. 169]. However, the problem was simultaneously exacerbated when *TAR* stopped publishing commentaries and rebuttals that sometimes aided comprehension of complicated research. Science journals are frequently much better about encouraging commentaries, replications, and rebuttals.

TAR BETWEEN 1986 AND 2005: THE MATURATION OF ACCOUNTICS

We pointed out earlier in Table 2 how the number of authors having five or more appearances in 20-year time spans has markedly declined over the entire 80-year life of *TAR*. Table 4 lists the most recent top authors for the 1986-2005 period. In contrast to the Heck and Bremser [1986] findings, the likelihood that any single author will have more than five appearances is greatly reduced in more recent times.

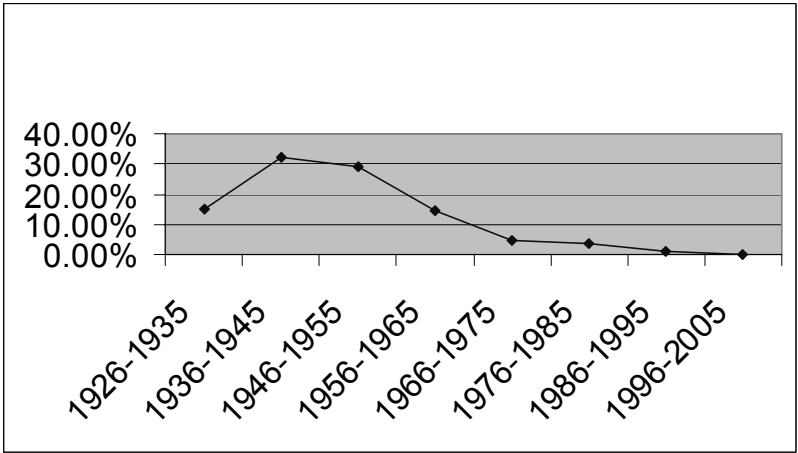
TABLE 4
Leading Authors in *The Accounting Review*, 1986-2005

Name	Appearances	Adjusted Appearances
Nelson, Mark W.	8	3.67
Verrecchia, Robert E.	7	3.83
Barth, Mary E.	7	3.67
Bonner, Sarah G.	7	3.17
Francis, Jere R.	7	3.00
Baginski, Stephen P.	7	2.75
Banker, Rajiv D.	7	2.67
Landsman, Wayne R.	6	2.92
Maines, Laureen A.	6	2.17
Sansing, Richard C.	5	3.50
Bartov, Eli	5	3.33
Kinney, William R., Jr.	5	3.33
Rajan, Madhav V.	5	2.83
Khurana, Inder K.	5	2.67
Kachelmeier, Steven J.	5	2.33
Barron, Orie E.	5	2.25
Libby, Robert	5	2.17
Hassell, John M.	5	2.00
Bowen, Robert M.	5	1.83
Authors with 4 appearances	45	
Authors with 3 appearances	87	
Authors with 2 appearances	131	
Authors with 1 appearance	459	

Practitioner membership in the AAA faded along with their interest in its published journals [Bricker and Previts, 1990]. The exodus of practitioners became even more pronounced in the 1990s when leadership in the large accounting firms was changing toward professional managers overseeing global operations. Rayburn [2006, p. 4] notes that practitioner membership is now less than 10% of AAA members, and many practitioner members join more for public relations and student recruitment reasons rather than interest in AAA research. Practitioner authorship in *TAR* plunged to nearly zero over recent decades, as reflected in Figure 2.

When it commenced operations in 1987, *AH* was to provide a new outlet for practitioner authors and readers because *TAR* was becoming increasingly esoteric for a practitioner audience. In that first year, 22% of the articles published in *AH* had practitioners as at least one of the authors. It never again was this high. In the 1987-1995 time span, only 8.1% of the authors were practitioners. For the 1996-2005 decade, this degree of par-

FIGURE 2
Non-Academic Authorship in *TAR*



icipation was reduced to 1.55%, with no practitioner authors at all for the years 1999-2004. Although the purpose of *AH* was to appeal to practitioners in terms of readership and authorship, it appears that the journal has failed in the latter case. Rayburn [2006, p. 4] announced that initiatives would be forthcoming to attract more practitioner authors, especially joint authorships between practitioners and academics in both *TAR* and *AH*.

Research published in *TAR* over the past two decades has become increasingly rigorous as more accounting researchers are conducting more sophisticated statistical analyses on larger databases. Compustat began to provide much more useful data such as operating earnings after 1985. Databases like Edgar and Audit Analytics did not exist prior to 1985. None of the accounting research databases were networked and online until the 1990s. At the same time, statistical inference software became easier to use when SAS came online in 1993.

TAR and other leading accounting research journals were influenced heavily by positivist methods expounded by Watts and Zimmerman [1978]. Positive theory in this context assumes that manager and investor wealth is positively tied to accounting earnings that in turn are impacted by accounting standards and tax regulators. More importantly, positive research methods are limited to scientific empirical and analytical studies verifiable under the Popper [1959] criterion of verifiability in reality apart from subjective opinion. Normative reasoning and opinion-based, case-study research, popular in law schools and in *TAR*

before 1980, were seemingly no longer considered legitimate for *TAR*. Watts and Zimmerman [1990] raised a vigorous defense against positivism's harshest critics such as Tinker et al. [1982], Christenson [1983], Whitley [1988], and Williams [2003]. Nonaka [2006] provides arguments that positivism's dominance in sociology, management, and organizational behavior research badly hindered those disciplines as well.

Compared to the *Journal of Finance*, *TAR* has had a much lower citation rate across disciplines. AAA President Rayburn [2005, p. 3] noted that the 1990-2002 Social Science Citation Index (SSCI) credits the *Journal of Finance* with 26,741 citations and the *Journal of Marketing* with 18,595 citations. Over the same time period, *TAR* was cited only 4,064 times. As stated earlier, Rayburn concluded that the low citation rate was due to a lack of diversity in terms of topics and research methods in *TAR* articles. She recommended that the AAA must "increase both the number and a greater diversity of topics using a wider range of research methods," particularly in *TAR*.

To her recommendations, we might add our viewpoint that *TAR* policies about not publishing replications should be changed. Failure to publish replications in *TAR* and other accounting research journals is *prima facie* evidence that the findings themselves are not as important as the methods and tools used to derive them. It is difficult, if not impossible, to find a published replication of any study published in the leading journals of the AAA. Jensen [2006b] reports a December 5, 2002 message from David Stout recalling when he was editor of *Issues in Accounting Education* for the AAA:

When I assumed the editorship of *Issues*, I had to appear before the AAA Publications Committee to present/defend a plan for the journal during my (then) forthcoming tenure. One of my plans was to institute a 'Replications Section' in the journal. (The sad reality, beyond the excellent points you make, is that the lack of replications has a limiting effect on our ability to establish a knowledge base. In short, there are not many things where, on the basis of empirical research, we can draw firm conclusions.) After listening to my presentation, the chair of the Publications Committee posed the following question: 'Why would we want to devote precious journal space to that which we already know?' To say the least, I was shocked--a rather stark reality check you might say. The lack of replications precludes us, in a very real sense, from 'knowing.'

AUTHORS AND ALMA MATERS

In Table 2, we found an increased turnover among *TAR* authors in recent years, although each year the majority of authors tend to have graduated from the top 20 universities. Table 5 lists the top alma maters of frequent *TAR* authors for the time intervals 1926-2005, 1966-1985, and 1986-2005. The persistence of the top 20 schools is even more noteworthy in Table 5 (alma maters) than in Table 3 (employers).

There are 17 alma maters consistently ranked in the top 20 in Table 5. Columbia and Pennsylvania dropped out of the top 30 in the 1966-1985 period but bounced back to ranks 25 and 23 respectively in the next two decades. Iowa was elevated to rank 7 in the 1986-2005 recent period. Ohio State and Rochester did not make strong showings in Table 3 as employers of *TAR* authors, but they are at ranks 8 and 19 as alma maters of frequent *TAR* authors in Table 5 across the most recent period. Although not noted for accountants, Harvard's doctoral graduates lifted Harvard to rank 27 in the last two decades.

The probability that any author in *TAR* will have one of the top 20 as an alma mater is over 50%. In terms of proportions of appearances of the top 20 alma maters in *TAR*, the percentages were 51.33% for 1926-2005, 59.27% for 1966-1985, and 61.39% for 1986-2005. There is some suggestion that not having graduated from one of the top 20 or 30 schools greatly reduces the probability of publishing in *TAR*.

Across the entire 1926-2005 *TAR* history, 37% of doctoral graduates were in the top 20 alma mater publishers in *TAR* using Hasselback [2006] data. But as new doctoral programs came on line, the very large doctoral programs, such as those at Illinois, Michigan, Texas, Indiana, and Michigan State, were greatly reduced in size over the 1986-2005 period. The top 20 schools in the 1986-2005 period (Table 5) only generated 13% of new doctoral graduates. Since most authors make appearances in *TAR* within a few years of graduation, we can roughly estimate that 13% of *TAR* authors in the most recent two decades had 61% of the *TAR* appearances. We stress that these comparisons are soft since some of the 1986-2005 *TAR* authors earned their doctorates before 1986.

Rodgers and Williams [1996, p. 58] reported the following about *TAR* authors from 1967-1993:

The relative success of recent graduates of the elite schools is quite apparent when we compare them to the remainder of the U.S. Ph.D. programs. Ninety-one U.S.

TABLE 5
Leading Doctoral Degree Alma Maters of Authors in *The Accounting Review*

Period: 1926-2005					Period: 1966-1985					Period: 1986-2005				
Rank	Institution	Appear- ances	Adjusted Appear- ances		Rank	Institution	Appear- ances	Adjusted Appear- ances		Rank	Institution	Appear- ances	Adjusted Appear- ances	
1	Illinois	470	373.37		1	Illinois	163	118.58		1	Michigan	70	37.75	
2	Michigan	307	242.84		2	Texas	85	54.58		2	Illinois	69	34.00	
3	Chicago	269	209.44		3	Michigan State	81	58.50		3	Chicago	68	39.50	
4	Texas	208	146.58		4	Ohio State	80	55.25		4	Stanford	66	32.08	
5	Ohio State	173	115.17		5	Chicago	76	61.00		5	Texas	60	33.00	
6	Stanford	139	88.75		6	Michigan	75	53.67		6	U. Washington	55	31.92	
7	UC Berkeley	130	99.92		7	Stanford	63	47.17		7	Iowa	53	27.00	
8	Minnesota	130	93.75		8	Minnesota	47	29.83		8	Ohio State	52	25.42	
9	Michigan State	130	90.33		9	Wisconsin	44	32.00		9	Indiana	40	17.58	
10	Indiana	127	90.75		10	UC Berkeley	43	31.67		10	UC Berkeley	39	22.42	
11	Columbia	118	91.85		11	Indiana	40	29.00		11	Cornell	39	20.75	
12	Northwestern	99	72.50		12	Carnegie Mellon	39	22.50		12	Florida	36	17.67	
13	U. Washington	94	62.08		13	Penn State	39	20.83		13	Michigan State	33	17.83	
14	NYU	85	63.67		14	NYU	35	26.17		14	Arizona	32	18.00	
15	Iowa	85	53.83		15	U. Washington	33	24.67		15	Minnesota	32	16.25	
16	Wisconsin	79	52.35		16	Cornell	32	20.33		16	Northwestern	30	17.33	
17	Cornell	75	44.08		17	Purdue	32	16.08		17	Carnegie Mellon	29	15.58	
18	Pennsylvania	71	57.50		18	Northwestern	29	18.17		18	Wisconsin	28	15.58	

TABLE 5
Leading Doctoral Degree Alma Maters of Authors in *The Accounting Review*
(continued)

Period: 1926-2005				Period: 1966-1985				Period: 1986-2005			
Rank	Institution	Appear- ances	Adjusted Appear- ances	Rank	Institution	Appear- ances	Adjusted Appear- ances	Rank	Institution	Appear- ances	Adjusted Appear- ances
19	Carnegie Mellon	69	39.08	19	Florida	27	21.50	19	Rochester	26	11.67
20	Florida	66	41.67	20	North Carolina	24	17.83	20	NYU	25	13.50
21	Penn State	62	33.33	21	Louisiana State	22	18.83	21	Penn State	23	12.50
22	Harvard	56	40.33	22	Oregon	19	14.00	22	Arizona State	23	10.58
23	North Carolina	48	31.42	23	UCLA	19	14.00	23	Pennsylvania	21	10.50
25	Arizona	46	29.50	25	Missouri	19	13.67	25	Columbia	21	9.33
25	Purdue	45	24.25	25	Alabama	19	12.17	25	North Carolina	20	10.08
26	LSU	41	35.08	26	Washington U.	16	9.83	26	Pittsburgh	19	10.83
27	Missouri	39	28.42	27	Kansas	16	8.67	27	Harvard	19	9.33
28	Arizona State	39	21.33	28	Iowa	15	11.50	28	Florida State	14	6.00
29	Southern California	38	28.00	29	Arkansas	15	10.33	29	Southern California	13	6.83
30	UCLA	37	27.92	30	Arizona State	15	10.25	30	Oregon	13	5.75
	Pittsburgh	37	27.17		Maryland	15	7.50				

programs were in existence by 1993. The weighted average probability of appearing at least once in *TAR* for the first twenty schools is .306; more than once it is .125. For the first thirty, these same probabilities are .276 and .111, respectively. But for the remaining sixty-one programs these probabilities are .058 and .017. Productivity, measured as appearances in *TAR*, is concentrated among the first thirty schools; on average, it seems not graduating from one of these schools substantially reduces the chances for a scholar to participate in the knowledge production process through publishing in *TAR*.

Rodgers and Williams [1996, pp. 67-68] list 56 newer U.S. doctoral programs and their graduates' publishing rates in *TAR* since 1965. These schools had very low frequencies of publications in *TAR*, while the top 20 older programs continued to dominate in Table 5.

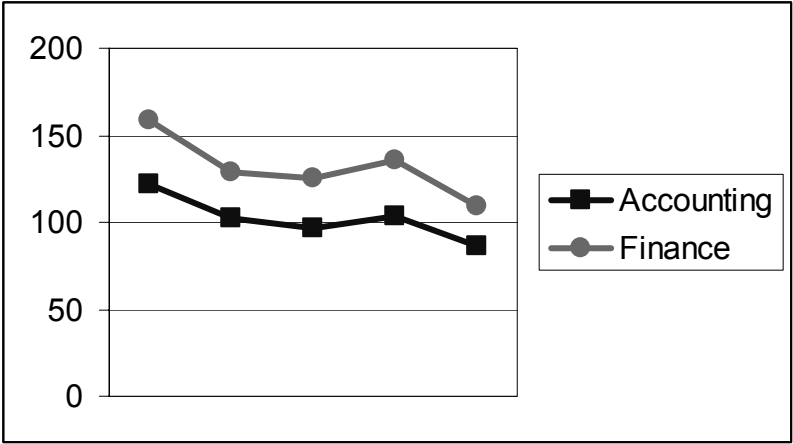
ARTICLE FREQUENCIES

Over time, both *TAR* in accounting and the *Journal of Finance* in finance became increasingly esoteric. A journal called *Financial Management* was introduced in finance in 1972 to provide an outlet for publishing research of interest to practitioners. *AH* was introduced in 1987 for the same reasons in accounting; both of these offshoot journals hoped to inspire professors and practitioners to engage in joint research. We thought it would be interesting to compare the article frequencies of these journals. Figure 3 compares the number of 2000-2004 doctoral graduates in accounting and finance over the same time span from AACSB-accredited universities.

New doctoral graduates are especially interested in publishing in the leading journals of their academic disciplines. Most submit one or several articles from their dissertations. Figure 4 compares the numbers of articles published from the two academic finance journals mentioned above with the two aforementioned AAA accounting journals.

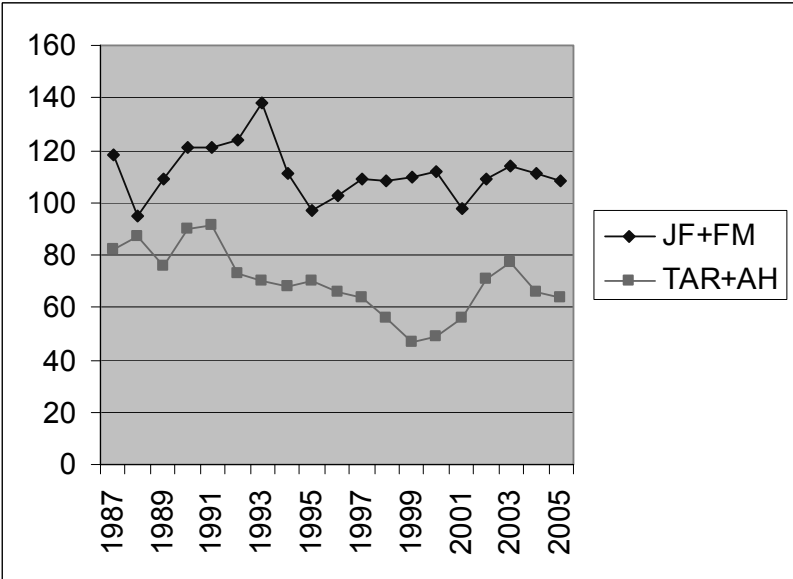
Comparison of these two graphs is somewhat difficult because there are other academic journals in both disciplines. However, the outcome in Figure 4 alone suggests roughly three times as much opportunity for publishing in the two leading finance journals even though the number of doctoral graduates in finance is only slightly larger than accounting. During the 1986-2005 period, the *Journal of Finance* alone published well

FIGURE 3
Numbers of Doctoral Degrees, 2000-2004



Source: Doctoral graduates of AACSB-accredited universities, provided by the AACBS Data director.

FIGURE 4
Numbers of Articles Published, 1987-2005



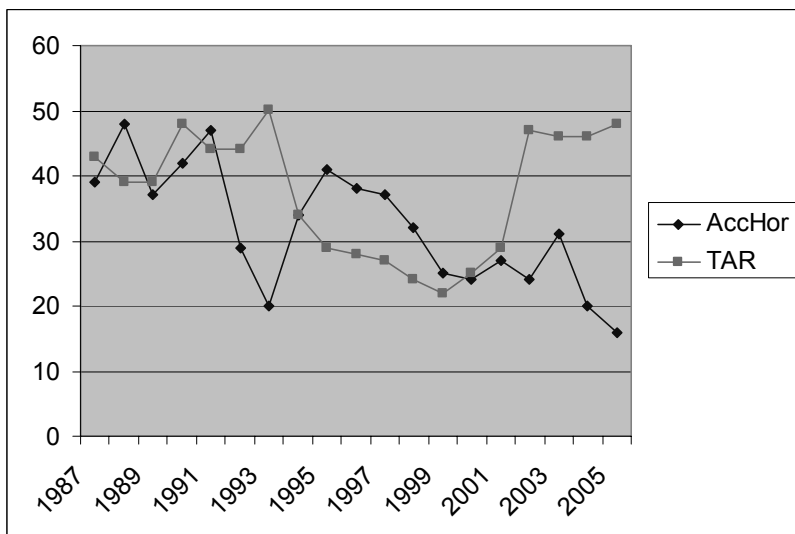
Accounting: *The Accounting Review* (TAR) and *Accounting Horizons* (AH)
Finance: *Journal of Finance* (JF) and *Financial Management* (FM)

over twice as many articles as *TAR*. This fact, plus the outcomes in Figures 3 and 4, support former AAA President Rayburn's contention that other academic disciplines such as finance provide many more outlets for faculty research than are available to accounting faculty. It also supports her recommendation for publishing more articles in *TAR*. Her appeal was answered in part when *TAR* increased the number of issues from four to six per year starting in 2006.

At the same time, Figure 5 shows a decline in the numbers of articles published in *AH* relative to the pattern for *TAR*. Accounting researchers have an increased propensity for publishing in *TAR* rather than the more practice and profession-oriented *AH*.

FIGURE 5

Articles Per Year in *TAR* and *Accounting Horizons*



TAR: The Accounting Review

AccHor: Accounting Horizons

Pressures for increased volume and diversity arise from accounting faculty, who argue that due to the long history of *TAR* as a premiere academic journal, publications there count more than publications in other AAA journals in tenure and performance evaluation processes.

TAR's lowest volume years as reflected in Figure 5 are somewhat misleading. During those few years, before the AAA raised membership dues and subscription rates, the Executive Committee placed hard restrictions on the number of pages allowed in AAA publications. This greatly reduced the number of articles in *TAR* until new funding relaxed the page restrictions. Outcomes in Figure 5 tend to bear out our contention that, over the past two decades, accounting researchers have been more interested in accountics than accounting practice.

PROPOSED CHANGES IN *TAR* AFTER ITS 80TH BIRTHDAY

Incoming AAA President Judy Rayburn addressed serious problems facing both the AAA and some of its publications, notably *TAR* and *AH*, in her August 10, 2005 presidential address at the annual meeting in San Francisco [Rayburn, 2005, 2006]. Her recommendations include increasing the number of articles in *TAR* by increasing the frequency of issues and the breadth and diversity of the published research. Rayburn's proposals for *AH* were that the AAA work actively to seek more articles that "deal with practice-related issues" and increase authorship by practitioners who work jointly with academics. Rayburn asserted: "Our top-tier journals as a group project too narrow a view of the breadth and diversity of [what should count as] accounting research."

In addition to publishing more papers in six rather than four issues per year, *TAR* will become somewhat more diverse in one sense. McCarthy [2005, p. 1] wrote the following with respect to AIS in *TAR*:

This has been generally true [that *TAR* will not publish AIS research] in the past and there are certainly still a host of accounting journals that underestimate the importance of accounting information systems (AIS) research. Additionally, it is still true that almost all accounting academics remain clueless about the different kinds of methodologies that AIS, MIS, and computer science researchers generally use. Thus, accounting systems people (like Dave and I plus many AECM members) are forced to live in an academic world that understands neither 'the what' nor 'the how' of AIS research and teaching. However, the American Accounting Association (in general) and *The Accounting Review* (in particular) are taking steps to narrow this gap in understanding. Dan Dhaliwal, the senior editor of *The*

Accounting Review (TAR) has appointed me – a known maverick in accounting circles and a long-time champion of AIS research and teaching – as an editor for *TAR*.

IMPLICATIONS OF ACCOUNTICS FOR ACCOUNTING PROGRAMS

We surmise that some professionals in accounting who have no aptitude or interest in becoming scientists refrain from enrolling in contemporary accounting doctoral programs due to their inherent narrowness and the lack of other epistemological and ontological methods more to their liking. New evidence suggests that this problem also extends to topical concentrations of those who do enter doctoral programs. In a study of the critical shortage of doctoral students in accountancy, Plumlee et al. [2006] discovered that in 2004, there were only 29 doctoral students in auditing and 23 in tax out of a total of 391 accounting doctoral students enrolled in years 1-5 in the U.S. We might add that the authors of the article were all appointed in 2004 by AAA President Bill Felix to an ad hoc Committee to Assess the Supply and Demand for Accounting Ph.D.s. Plumlee et al. [2006, p. 125] wrote as follows:

The Committee believes the dire shortages in tax and audit areas warrant particular focus. One possible solution to these specific shortages is for Ph.D. Programs to create new tracks targeted toward developing high-quality faculty specifically in these areas. These tracks should be considered part of a well-rounded Ph.D. program in which students develop specialized knowledge in one area of accounting, but gain substantive exposure to other accounting research areas...

A possible explanation for the shortages in these areas is that Ph.D. Students perceive that publishing audit and tax research in top accounting journals is more difficult, which might have the unintended consequence of reducing the supply of Ph.D.-qualified faculty to teach in those specialties. Given that promotion and tenure requirements at major universities require publication in top-tier journals, students are likely drawn to financial accounting in hopes of getting the necessary publications for career success. While the Committee has no evidence that bears directly on this point, it believes that the possibility deserves further consideration.

A number of AAA presidents have asserted that empirical research is not always well-suited for "discovery research." These

AAA presidents urged in their messages to the membership and elsewhere that accounting research become more diverse in terms of topics and methods. Examples include Dyckman and Zeff [1984], Langenderfer [1987], Bailey [1994], and Rayburn [2006]. The following is a quote from the presidential message of Sundem [1993, p. 3]:

Although empirical scientific method has made many positive contributions to accounting research, it is not the method that is likely to generate new theories, though it will be useful in testing them. For example, Einstein's theories were not developed empirically, but they relied on understanding the empirical evidence and they were tested empirically. Both the development and testing of theories should be recognized as acceptable accounting research.

Although the AAA expanded the number and diversity of its journals, none carry as much weight as publication in *TAR* in university tenure and performance evaluation decisions. As a result, virtually all doctoral program curricula focus on the development of skill sets needed for publishing in accountings journals like *TAR*. Scientific research skills replaced accounting content in doctoral programs. Today, doctoral candidates in accountancy must have skills in mathematics, statistics, and scientific model-building areas such as econometrics, psychometrics, and sociometrics. This emphasis has discouraged many young practicing accountants from returning to campus to obtain doctoral degrees. Those with no interest in or aptitude for scientific research have virtually no place to go to get a quality accounting doctoral degree. Thus, an unwanted consequence of the publishing criteria at top-tier accounting journals has been the narrowing of doctoral program curricula and the decrease in the number of potential doctoral candidates in accounting [Plumlee et al., 2006].

For accounting, Hasselback [2006] reports that the number of accounting doctoral degrees plunged from 212 in 1989 to 96 in 2004. Even if he missed a few in his count, the trend is clearly critical. Fewer and fewer accounting undergraduate and master's degree graduates are returning to earn doctoral degrees. The reasons for this are complex, but there is considerable anecdotal evidence that some potential doctoral candidates are not interested in the narrow, scientific methodology curriculum offered in most doctoral programs.

Zimmerman [2001; Watts and Zimmerman, 1978, 1990] was a major mover in the top-tier journal shift toward positivist

methods and accountics research. Later, he consistently took the position that the increased emphasis on teaching in business schools relative to research threatens the survival of business education in top universities [DeAngelo et al., 2005]. On this point, we differ with him and his co-authors. Student evaluations and demands for teaching have indeed put greater stress upon teaching, but tenure and performance evaluation of faculty have put greater pressure on faculty to publish in top-tier journals that have narrow accountics criteria. Many potential doctoral candidates are interested in teaching accounting and even in conducting research, but they do not want to conduct the mathematical and scientific research required for publication, tenure, and high performance evaluations [Plumlee et al., 2006].

CONCLUSION

In the first 40 years of *TAR*, an accounting “scholar” was first and foremost an expert in accounting. After 1960, following the Gordon and Howell Report, the perception of what it took to be a “scholar” changed to quantitative modeling. It became advantageous for an “accounting” researcher to have a degree in mathematics, management science, mathematical economics, psychometrics, or econometrics. Being a mere accountant no longer was a sufficient credential to be deemed a scholarly researcher. Many doctoral programs stripped much of the accounting content out of the curriculum and sent students to mathematics and social science departments for courses. Scholarship on accounting standards became too much of a time diversion for faculty who were “leading scholars.” Particularly relevant in this regard is Dennis Beresford’s [2005] address to the AAA membership at the annual meeting in San Francisco:

In my eight years in teaching I’ve concluded that way too many of us *don’t* stay relatively up to date on professional issues. Most of us have some experience as an auditor, corporate accountant, or in some similar type of work. That’s great, but things change quickly these days.

Jane Mutchler [2004, p. 3] made a similar appeal for accounting professors to become more involved in the accounting profession when she was president of the AAA.

In the last 40 years, *TAR*’s publication preferences shifted toward problems amenable to scientific research, with esoteric models requiring accountics skills in place of accounting expertise. When Professor Beresford attempted to publish his

remarks, an *AH* referee's report to him contained the following revealing reply about "leading scholars" in accounting research [quoted in Jensen 2006a]:

The paper provides specific recommendations for things that accounting academics should be doing to make the accounting profession better. However (unless the author believes that academics' time is a free good) this would presumably take academics' time away from what they are currently doing. While following the author's advice might make the accounting profession better, what is being made worse? In other words, suppose I stop reading current academic research and start reading news about current developments in accounting standards. Who is made better off and who is made worse off by this reallocation of my time? Presumably my students are marginally better off, because I can tell them some new stuff in class about current accounting standards, and this might possibly have some limited benefit on their careers. But haven't I made my colleagues in my department worse off if they depend on me for research advice, and haven't I made my university worse off if its academic reputation suffers because I'm no longer considered a **leading scholar**? Why does making the accounting profession better take precedence over everything else an academic does with their time?

The above quotation illustrates the consequences of editorial policies of *TAR* and several other leading accounting research journals. To be considered a "leading scholar" in accountancy, one's research must employ mathematically based economic/behavioral theory and quantitative modeling. Most *TAR* articles published in the past two decades support this contention. But according to AAA President Rayburn and other recent AAA presidents, this scientific focus may not be in the best interests of accountancy academicians or the accountancy profession.

In terms of citations, *TAR* fails on two accounts. Citation rates are low in practitioner journals because the scientific paradigm is too narrow, thereby discouraging researchers from focusing on problems of great interest to practitioners that seemingly just do not fit the scientific paradigm due to lack of quality data, too many missing variables, and suspected non-stationarities. *TAR* editors are loath to open the journal to non-scientific methods so that really interesting accounting problems are neglected. Those non-scientific methods include case-method stud-

ies, traditional historical method investigations, and normative deductions.

In the other account, *TAR* citation rates are low in academic journals outside accounting because the methods and techniques being used (like CAPM and options pricing models) were discovered elsewhere, and accounting researchers are not sought out for discoveries of scientific methods and models. The intersection of models and topics that do appear in *TAR* seemingly are borrowed models and uninteresting topics outside the academic discipline of accounting.

We close with a quotation from McLemee demonstrating that what happened among accountancy academics over the past four decades is not unlike other academic disciplines that developed “internal dynamics of esoteric disciplines,” communicating among themselves in loops detached from their underlying professions. McLemee’s [2006] article stems from Bender [1993]:

‘Knowledge and competence increasingly developed out of the internal dynamics of esoteric disciplines rather than within the context of shared perceptions of public needs,’ writes Bender. ‘This is not to say that professionalized disciplines or the modern service professions that imitated them became socially irresponsible. But their contributions to society began to flow from their own self-definitions rather than from a reciprocal engagement with general public discourse.’

Now, there is a definite note of sadness in Bender’s narrative – as there always tends to be in accounts of the shift from *Gemeinschaft* to *Gesellschaft*. Yet it is also clear that the transformation from civic to disciplinary professionalism was necessary.

‘The new disciplines offered relatively precise subject matter and procedures,’ Bender concedes, “at a time when both were greatly confused. The new professionalism also promised guarantees of competence — certification — in an era when criteria of intellectual authority were vague and professional performance was unreliable.’

But in the epilogue to *Intellect and Public Life*, Bender suggests that the process eventually went too far. ‘The risk now is precisely the opposite,’ he writes.

'Academe is threatened by the twin dangers of fossilization and scholasticism (of three types: tedium, high tech, and radical chic). The agenda for the next decade, at least as I see it, ought to be the opening up of the disciplines, the ventilating of professional communities that have come to share too much and that have become too self-referential.'

For the good of the AAA membership and the profession of accountancy in general, one hopes that the changes in publication and editorial policies at *TAR* proposed by President Rayburn [2005, p. 4] will result in the "opening up" of topics and research methods produced by "leading scholars."

REFERENCES

- Abdel-khalik, A. (1976), "An Analysis of the Attitudes of a Sample of AAA Members toward *The Accounting Review*," *The Accounting Review*, Vol. 51, No. 3: 604-616.
- Bailey, A. (1994), "Journals," *Accounting Education News*, Vol. 22, No. 2: 1-5.
- Bender, T. (1993), *Intellect and Public Life: Essays on the Social History of Academic Intellectuals in the United States* (Baltimore: Johns Hopkins University Press).
- Beresford, D. (2005), "Luncheon Address at the American Accounting Association Annual Meetings," <http://www.trinity.edu/rjensen/theory/00overview/theory01.htm#AcademicsVersusProfession>.
- Bricker, R. and Previts, G. (1990), "The Sociology of Accountants: A Study of the Practice Community Schisms," *Accounting Horizons*, Vol. 4, No. 1: 1-14.
- Chatfield, M. (1975), "The *Accounting Review*'s First Fifty Years," *The Accounting Review*, Vol. 50, No. 1: 1-6.
- Christenson, C. (1983), "The Methodology of Positive Accounting," *The Accounting Review*, Vol. 58, No. 1: 1-22.
- DeAngelo, H., DeAngelo, L., and Zimmerman, J.L. (2005), "What's Really Wrong with U.S. Business Schools?" <http://ssrn.com/abstract=766404>.
- Dyckman, T.R. and Zeff, S.A. (1984), "Two Decades of the *Journal of Accounting Research*," *Journal of Accounting Research*, Vol. 22, No. 1: 225-297.
- Fama, F.E. and French, K.R. (1992), "The Cross-Section of Expected Stock Returns," *Journal of Finance*, Vol. 47, No. 2: 427-465.
- Fleming, R.J., Graci, S.P., and Thompson, J.E. (2000), "Dawning of the Age of Quantitative/Empirical Methods in Accounting Research: Evidence from the Leading Authors of *The Accounting Review*, 1966-1985," *Accounting History Journal*, Vol. 27, No. 1: 43-72.
- Flesher, D. (1991), *The Third-Quarter Century of the American Accounting Association 1966-1991* (Sarasota: American Accounting Association).
- Forrester, D.A. (2003), "The St. Louis Exposition of 1904 and the Accountants' Congress," http://accfinweb.account.strath.ac.uk/df/st_louis_2003.html.
- Garcha, B.S., Harwood, G.B., and Hermanson, R.H. (1983), "A Study of the Readership of *The Accounting Review*," *Journal of Accounting Education*, Vol. 21, No. 1: 21-39.
- Gordon, R.A. and Howell, J.E. (1959), *Higher Education for Business* (New York: Columbia University Press).

- Hasselback, J.R. (2006), *Accounting Faculty Directory 2006-2007* (Englewood Cliffs: Prentice-Hall).
- Heck, J.L. and Bremser, W.G. (1986), "Six Decades of *The Accounting Review*: A Summary of Author and Institutional Contributors," *The Accounting Review*, Vol. 61, No. 4: 735-744
- Heck, J.L., Jensen, R.E., and Cooley, P.L. (1990), "An Analysis of Contributors to Accounting Journals Part II: The Aggregate Performances," *International Journal of Accounting*, Vol. 25, No. 2: 202-217.
- Heck, J.L., Jensen, R. E., and Cooley, P. L. (1991), "An Analysis of Contributors to Accounting Journals Part II: The Individual Academic Accounting Journals," *International Journal of Accounting*, Vol. 26, No. 1: 1-17.
- Ittner, C.D. and Larcker, D.F. (2001) "Assessing Empirical Research in Managerial Accounting: A Value-Based Management Perspective," *Journal of Accounting and Economics*, Vol. 32, No. 2: 349-410.
- Jensen, R.E. (2006a), "Brief Summary of Accounting Theory: Academics Versus the Profession," <http://www.trinity.edu/rjensen/theory/00overview/theory01.htm#AcademicsVersusProfession>.
- Jensen, R.E. (2006b), "Brief Summary of Accounting Theory: Replication," <http://www.trinity.edu/rjensen/theory/00overview/theory01.htm#Relication>.
- Langenderfer, H. (1987), "Accounting Education's History – A 100 Year Search for Identity," *Journal of Accountancy*, Vol. 163, No. 5: 302-331.
- Lee, T. (1997), "The Editorial Gatekeepers of the Accounting Academy," *Accounting, Auditing & Accountability Journal*, Vol. 10, No. 1: 11-30.
- Martin, J.R. (2001), "MAAW Controversial Issues Link," <http://www.maaw.info/ArticleSummaries/ArtSumZimmerman01.htm>.
- McCarthy, W.E. (2005), "Message on the AECM Listserv," <http://www.trinity.edu/rjensen/theory/00overview/theory01.htm#AcademicsVersusProfession>.
- McLemee, S. (2006), "Notes from the Underground. *Inside Higher Ed*. January 18," <http://www.insidehighered.com/views/2006/01/18/mclmeme>.
- McMillan, K.P. (1998), "The Science of Accounts: Bookkeeping Rooted in the Ideal of Science," *Accounting Historians Journal*, Vol. 25 No. 2: 1-21.
- Mutchler, J. (2004), "President's Message," *Accounting Education News*, Vol. 32, No. 1: 1-4.
- Nonaka, I. (2006) "Managing Organizational Knowledge: Theoretical and Methodological Foundations," in Smith, K.G. and Hitt, M.A. (eds.), *Great Minds in Management: The Process of Theory Development* (Oxford: Oxford University Press): 373-393. See also, <http://www.trinity.edu/rjensen/theory/00overview/GreatMinds.htm>.
- Pierson, F.C. (1959), *The Education of American Businessmen* (New York: McGraw-Hill Book Company).
- Plumlee, D.R., Kachelmeir, S.J., Madeo, S.A., Pratt, J.H., and Krull, G. (2006), "Assessing the Shortage of Accounting Faculty," *Issues in Accounting Education*, Vol. 21, No. 2: 113-126.
- Popper, K. (1959), *The Logic of Scientific Discovery* (London: Routledge), translation of 1934 edition.
- Rayburn, J.D. (2005), "PowerPoint Slides from the American Accounting Association President's Address in San Francisco," <http://aaahq.org/AM2005/menu.htm>.
- Rayburn, J.D. (2006), "President's Message," *Accounting Education News*, Vol. 33, No. 1: 1-4.
- Rodgers, J. and Williams, P.A. (1996), "Patterns of Research Productivity and Knowledge Creation at *The Accounting Review*: 1967-1993," *Accounting Historians Journal*, Vol. 23, No. 1: 51-88.

- Sundem, G. (1987), "Overview of Four Years of Submissions to *The Accounting Review*," *The Accounting Review*, Vol. 62, No. 1: 191-202.
- Sundem, G. (1993), "President's Message," *Accounting Education News*, Vol. 21, No. 3: 3.
- Tinker, T., Merino, B., and Neimark, M. (1982), "The Normative Origins of Positive Theories: Ideology and Accounting Thought," *Accounting, Organizations and Society*, Vol. 7, No. 2: 167-200.
- Watts, R. and Zimmerman, J.L. (1978), "Towards a Positive Theory of the Determination of Accounting Standards," *The Accounting Review*, Vol. 53, No. 1: 112-134.
- Watts, R. and Zimmerman, J.L. (1990), "Positive Accounting Theory: A Ten Year Perspective," *The Accounting Review*, Vol. 65, No. 1: 131-156.
- Whitley, R.D. (1988), "The Possibility and Utility of Positive Accounting Theory," *Accounting, Organizations and Society*, Vol. 13, No. 6: 631-645.
- Williams, P.F. (1985), "A Descriptive Analysis of Authorship in *The Accounting Review*," *The Accounting Review*, Vol. 60, No. 2: 300-313.
- Williams, P.F. (2003), "Modern Accounting Scholarship: The Imperative of Positive Economic Science," *Accounting Forum*, Vol. 27, No. 3: 248-263.
- Zeff, S.A. (1966), *The American Accounting Association – The First Fifty Years* (Sarasota: American Accounting Association).
- Zeff, S.A. (1978), "The Rise of Economic Consequences," *Journal of Accountancy*, Vol. 154, No. 12: 56-63.
- Zimmerman, J.L. (2001), "Conjectures Regarding Empirical Managerial Accounting Research," *Journal of Accounting and Economics*, Vol. 32, No. 2: 411-427.